Room Air Conditioner

User Manual

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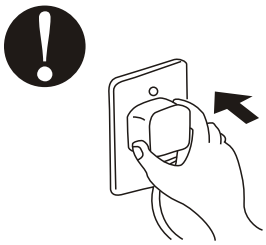
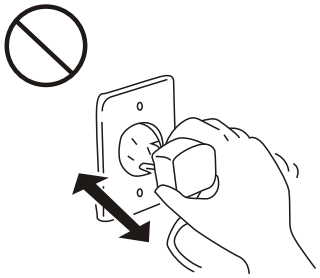
Attention during Usage

⚠ WARNING

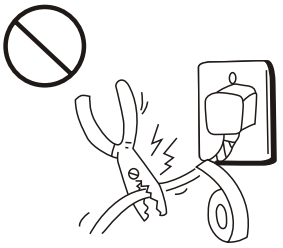
■ **Ensure the power plug is secure**
If the plug is not secure, it may cause a electric shock, over-heating or a fire.



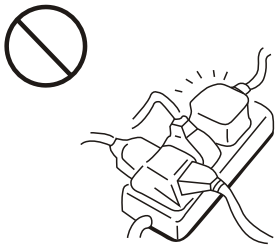
■ **Never pull out the power plug during operation.**
otherwise, it may cause a electric shock or a fire due to over - heating.



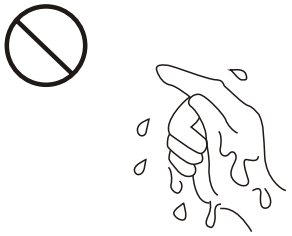
■ **Never use damaged electric wires or unspecified electric wires.**
otherwise it may cause a electric shock or a fire.



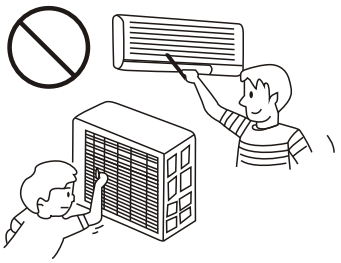
■ **Do not use the same socket with other electric appliances or use an extension cord.**
otherwise it may cause a electric shock or a fire due to over-heating.



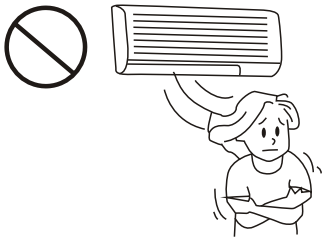
■ **Do not operate when the hands are wet.**
due to danger of a electric shock.



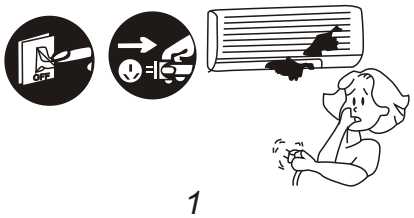
■ **Do not insert a rod or other objects into the inlet or outlet vents.**
otherwise, it may cause a electric shock or a fire.



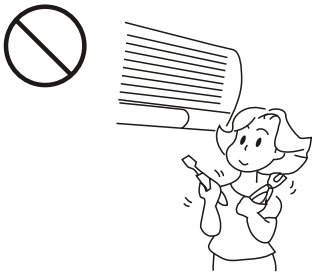
■ **Do not expose yourself to a single directional airflow for a long period** to avoid harming to your health.



■ **In case of abnormal condition (burning smell etc.), pull out the power plug to stop the air conditioner from running, or disconnect the power supply by means of a electric current protector.**
If the abnormal condition persists, it may cause a electric shock or a fire due to over-heating. Please consult the dealer of service centre as soon as possible to arrange for a repair.



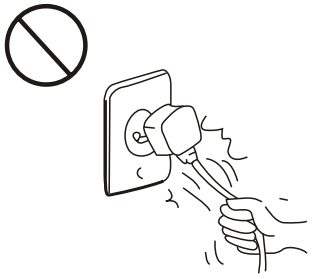
■ **Do not attempt to carry out a repair.**
Improper repairs may cause a electric shock or a fire. You should contact the dealer of service centre to arrange for a repair.



Attention during Usage

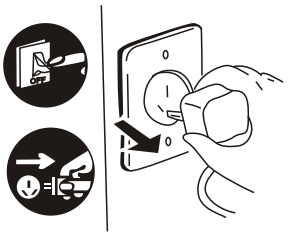
■ **Do not hold the electric wire to pull out the power plug.**

Pulling of the electric wire may cause over-heating of the electric wire causing a fire.



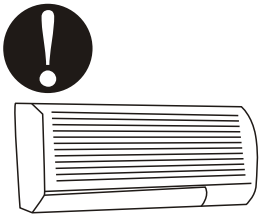
■ **If the air-conditioner is not in use for a long time, it is necessary to pull out the power plug.**

Excessive dust on the power plug may also cause over-heating or a fire.



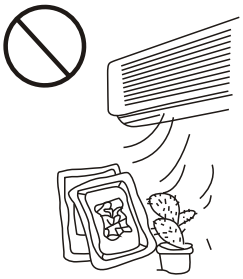
■ **Switch off the power supply while cleaning the air-conditioner.**

Please take care not to damage the internal fan which is rotating at a high speed.



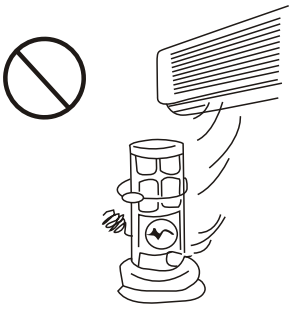
■ **Do not use the air-conditioner for other purposes.**

Do not use it for keeping precision instruments, food, plants and artistic items. This may affect the quality of the food.



■ **Do not place a heater in front of the air-conditioner.**

If internal combustion of the heater is not complete, it may give out poisonous carbon monoxide.

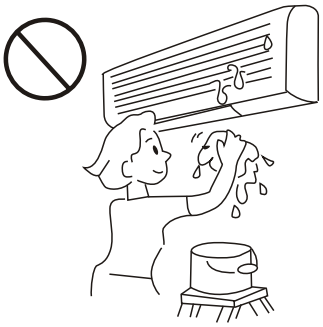


■ **The room should be kept well-ventilated.**

When a heater is used in the room, it should be noted that poor ventilation or lack of oxygen may cause head-ache.

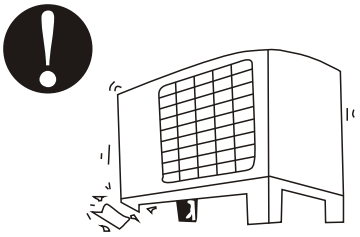
■ **Do not clean the air-conditioner with water.**

Due to danger of electric shocks.



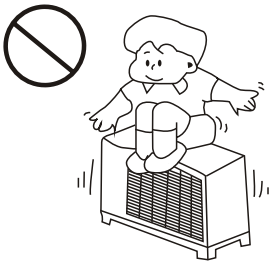
■ **For long period of usage, please check that the installation platform is not damaged.**

Otherwise the outdoor unit may fall down or be damaged. Please contact the dealer.



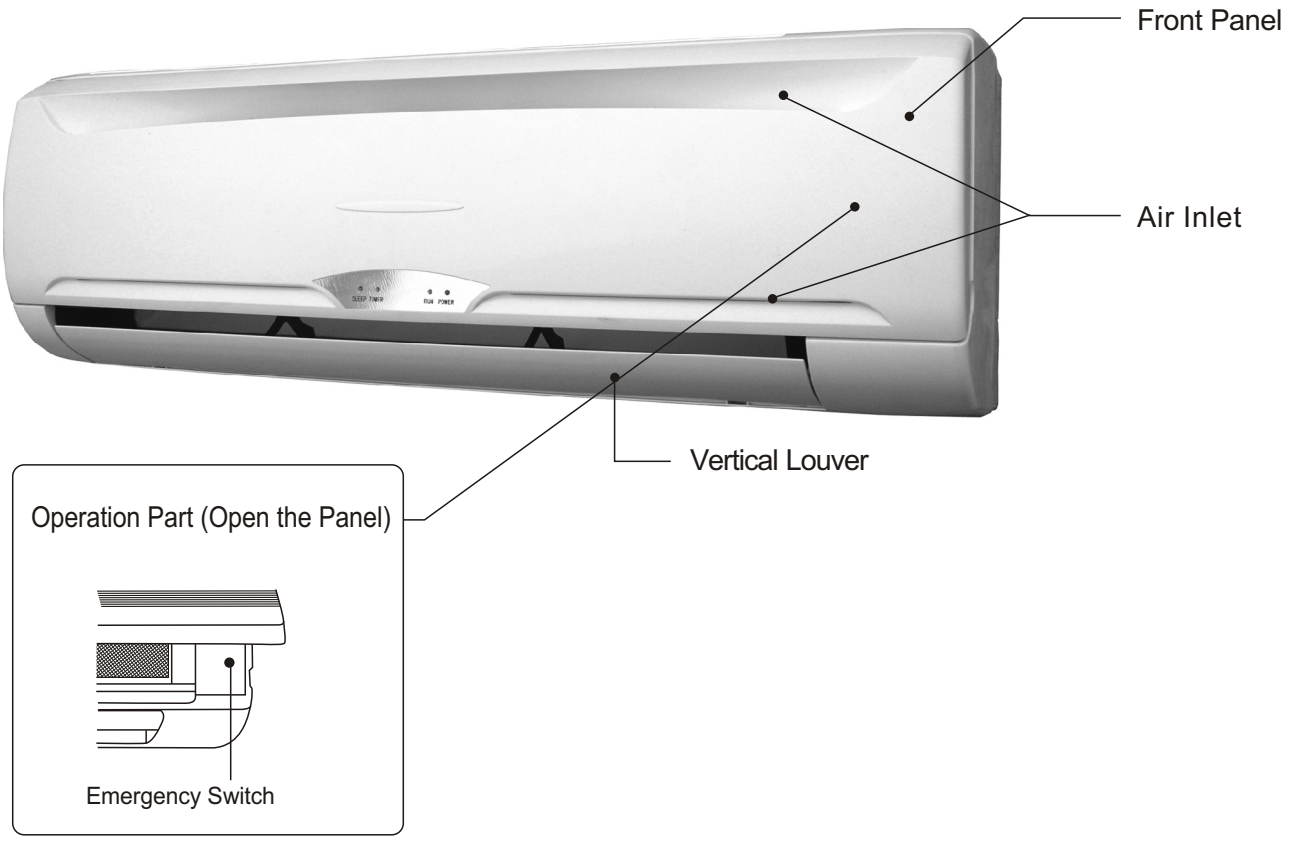
■ **Do not climb or place articles on the outdoor unit**

avoid being hurt on falling down.

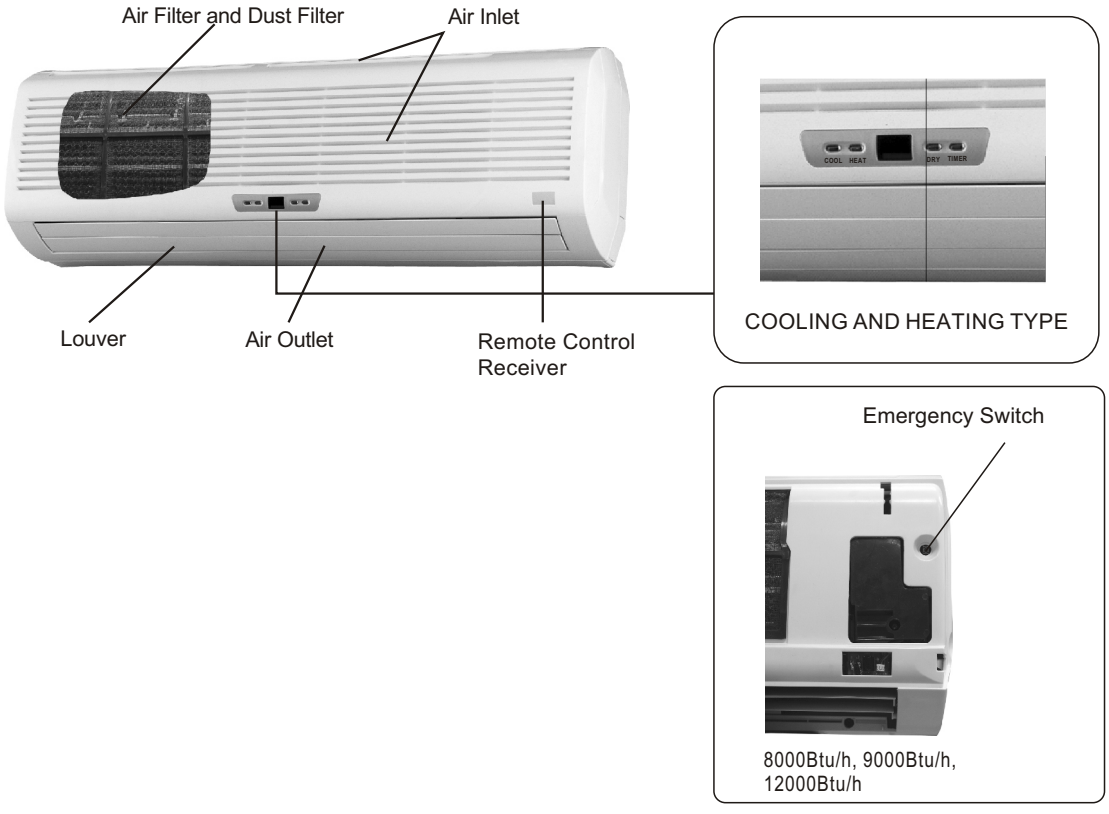


Descriptions of Parts

Indoor Unit (C series)

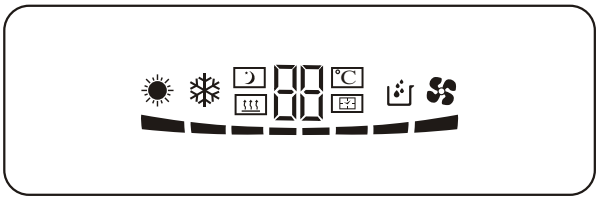


Indoor Unit (D series)



Descriptions of Parts

Indoor Unit (G series)



Auto operation mode

Cooling operation mode

Heating operation mode

Dehumidifying operation mode

Swing

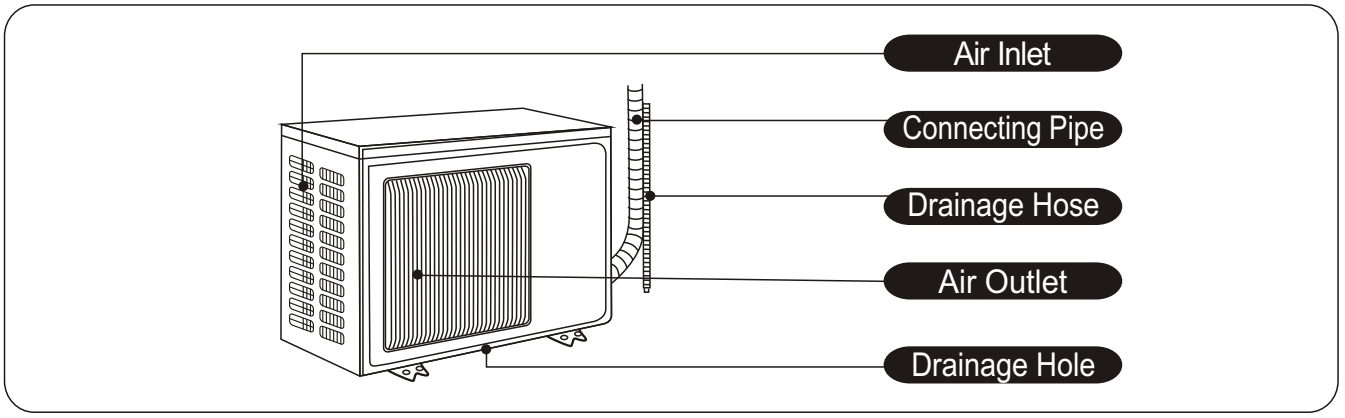
CLOCK or TEMPERATURE display

Displays when turns to CLOCK status

Displays when turns to TEMPERATURE status

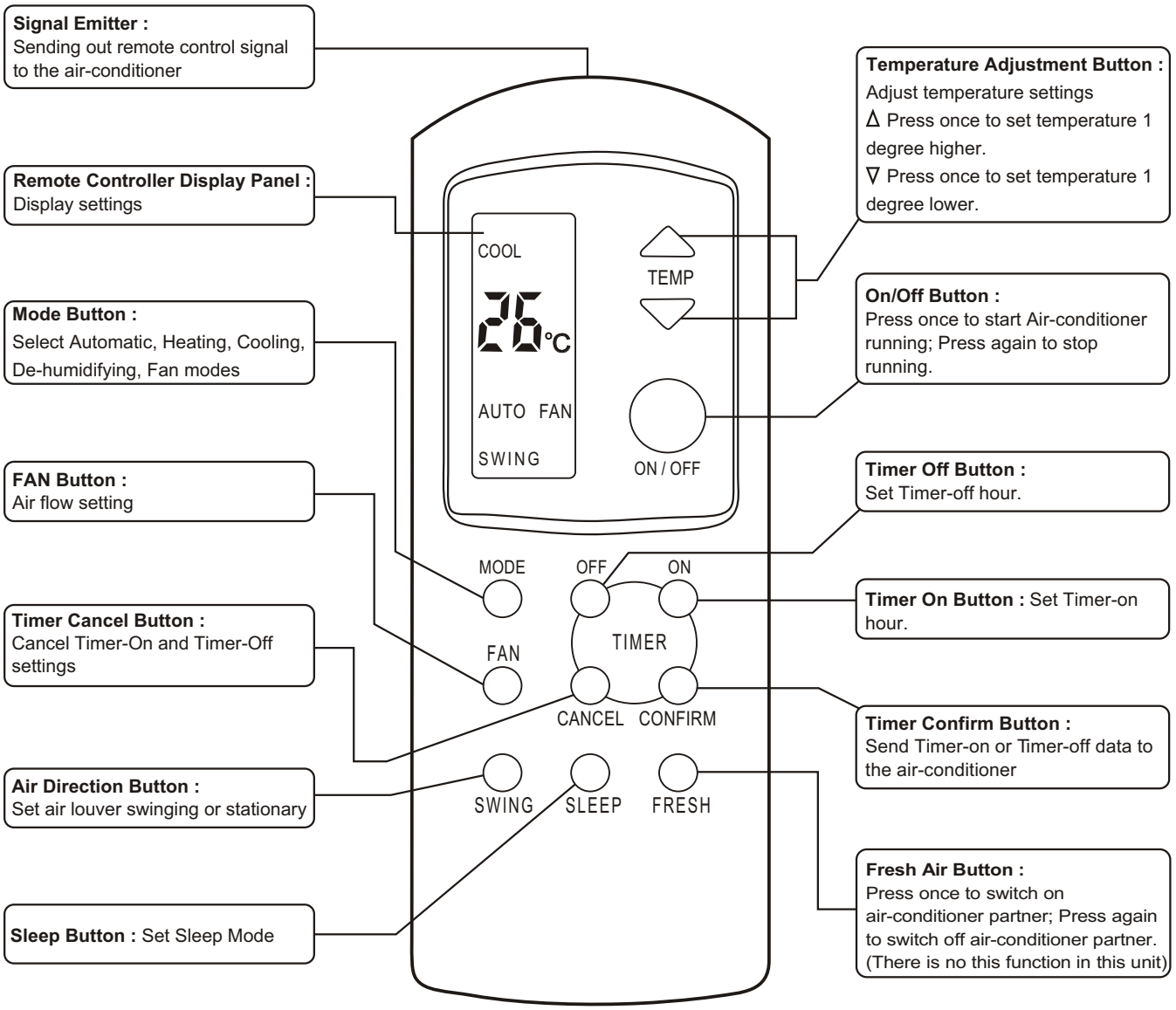
SLEEP

Outdoor Unit



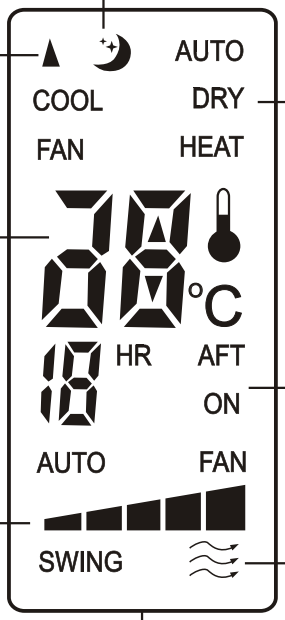
The figures of indoor unit and outdoor are only simple presentation of the appearance of the application; it may not conform with actual one your purchased.

Remote Controller


Signal Emitter :
Sending out remote control signal to the air-conditioner
Remote Controller Display Panel :
Display settings
Mode Button :
Select Automatic, Heating, Cooling, De-humidifying, Fan modes
FAN Button :
Air flow setting
Timer Cancel Button :
Cancel Timer-On and Timer-Off settings
Air Direction Button :
Set air louver swinging or stationary
Sleep Button : Set Sleep Mode
Temperature Adjustment Button :
Adjust temperature settings
Δ Press once to set temperature 1 degree higher.
∇ Press once to set temperature 1 degree lower.
On/Off Button :
Press once to start Air-conditioner running; Press again to stop running.
Timer Off Button :
Set Timer-off hour.
Timer On Button : Set Timer-on hour.
Timer Confirm Button :
Send Timer-on or Timer-off data to the air-conditioner
Fresh Air Button :
Press once to switch on air-conditioner partner; Press again to switch off air-conditioner partner. (There is no this function in this unit)
COOL
26°C
AUTO FAN
SWING
TEMP
ON / OFF
MODE
FAN
OFF
ON
TIMER
CANCEL
CONFIRM
SWING
SLEEP
FRESH

- No heating mode for cooling-only type air-conditioner
- When controlling the air conditioner with a remote controller, please point the emitter of the remote controller towards the receiver on the air-conditioner.

Remote Controller



Emission Indicator :
This symbol flashes once when the Remote Controller emits signals to the air-conditioner.

Sleep Display :
It indicates Sleep Mode setting

Mode Display :
Press "Mode" button to display the current working mode. Automatic, Cooling, Dehumidifying, Fan modes may be selected for cooling-only types. Automatic, Cooling, Dehumidifying, Fan, Heating modes may be selected for cooling-heating types.

Temperature Display :
It displays the current set temperature which may be adjusted by Temperature Adjustment Button Δ or ∇ within the range of 18 ~30°C. In Automatic Mode, temperature is not displayed but " Δ Standard " (standard) temperature + 2°C) or " ∇ Standard " (standard temperature -2°C) is displayed.

Timer Display :
It displays the time setting for Timer-On or Timer-Off in the range of 1~12 hours.

FAN Display :
It displays the current amount of air flow.

FAN	**Display on Remote Controller**
Automatic	**AUTO FAN**
Low	**FAN**
Mid	**FAN**
High	**FAN**

Fresh Air Display :
When " ≈ " is in display, air-conditioner partner is running. When the display disappears, air-conditioner partner is off. (There is no this function in this unit)

Air Direction Display :
When "Swing" is in display, the up-down louver of the air-conditioner is swinging. When the display disappears, the up-down louver stops swinging.

NOTE:
All Displays on the diagram are listed out for demonstration. During operation, only the relevant Display will appear on the Remote Controller.

Operation Guide

Proper settings of Heating, Cooling, Dehumidifying and Fan modes

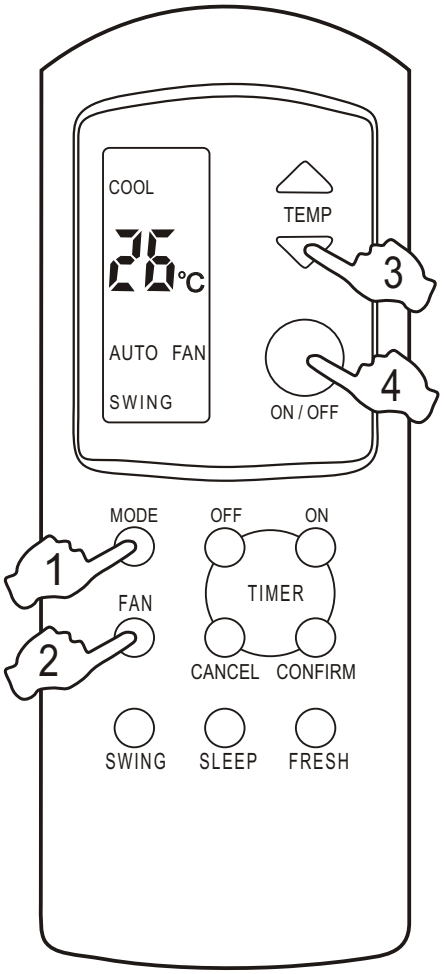
Mode Selection (1)

Press "Mode" button to select the required working mode, which is changed in the following sequence when pressed once:

Automatic → Cooling → Dehumidifying → Fan → Heating

NOTE:

- Heating mode is available only on cooling-heating type air conditioner.
- Automatic operation will be explained in detail on next page.



Air Flow Selection (2)

Press "FAN" button to select the required amount of air flow, which is changed in the following sequence when pressed once :

Automatic → Low → Mid → High

NOTE:

- When Automatic FAN is selected, the air-conditioner will automatically select the suitable amount of air flow according to room temperature.
- When Dehumidifying is selected, the amount of air flow is set by the machine and fan setting is not functional.

Temperature Setting Selection (3)

Press "Temperature Adjustment Button △" to set temperature 1 degree higher.
Press "Temperature Adjustment Button ▽" to set temperature 1 degree lower.
Hold down the Button to increase or decrease the temperature settings progressively.

NOTE:

- Range of adjustable temperature settings : 18°C ~ 30°C.

Starting Operation (4)

Press "On/Off" button, and when the unit receives the signal, it gives out two "beep" tones, the operation light is on and the air-conditioner starts operation.

NOTE:

- If it is desired to run the machine at the same settings for mode, air flow and temperature as the last operation, skip Steps 1~3 and start the machine directly.
  If the interval is shorter than 3 minutes from last shut down to the present switch-on, the compressor only re-starts after 3 minutes to protect the system.
  After switching on and if the mode is changed, the system may delay for 3 minutes before starting operation.
  When heating mode is selected, the internal fan will delay operation for a while when the machine is switched on to prevent cool air circulation at the beginning.
  After switching on, air flow amount and temperature may be separately adjusted as desired.

AUTO Operation Mode

Automatic operation Mode

Mode Selection (1)

Press "Mode" button to select Automatic Operation mode.

Fan Selection (2)

Press "FAN" button to select the required amount of air flow, which is changed in the following sequence when pressed once :

Automatic → Low → Mid → High

NOTE:

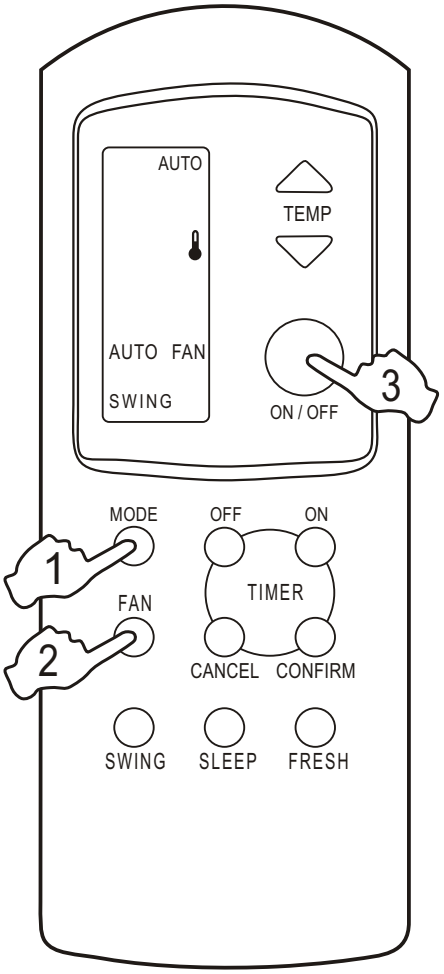
- When Automatic FAN is selected, the unit will automatically select the suitable amount of air flow according to room temperature.

Starting Operation (3)

Press " On/Off " button, and when the unit receives the signal, it gives out two " beep " tones, the operation light is on and the air-conditioner starts operation is automatic mode.

NOTE:

- In automatic mode, the air-conditioner automatically selects "Heating" (for heating-cooling type), "Cooling", "Fan" modes depending on room temperature, with details as the following table:



Temperature / Model	< 20°C	20°C ~ 26°C	> 26°C
Cooling	Fan(low)	Fan	Cooling
Heating pump	Heating	Fan	Cooling

NOTE:

- On cooling, the standard temperature setting is 26°C. On heating, the standard temperature setting is 20°C.
  In the event of discomfort, adjustment may be set by means of the remote controller.

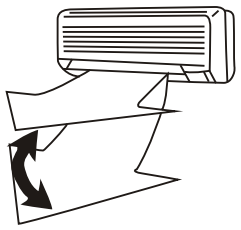
Adjustment in Automatic Mode

Feeling	Button	Operation
Temperature setting may be lowered by 2°C if a bit hot	TEMP ∇	Press once, displaying ∇
Temperature setting may be raised by 2°C if a bit cool	TEMP Δ	Press once, displaying Δ
Unsuitable fan speed	FAN	Press once to change the air flow progressively until the suitable air flow is selected.

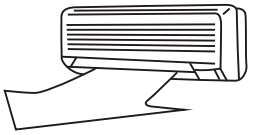
Air Direction Adjustment

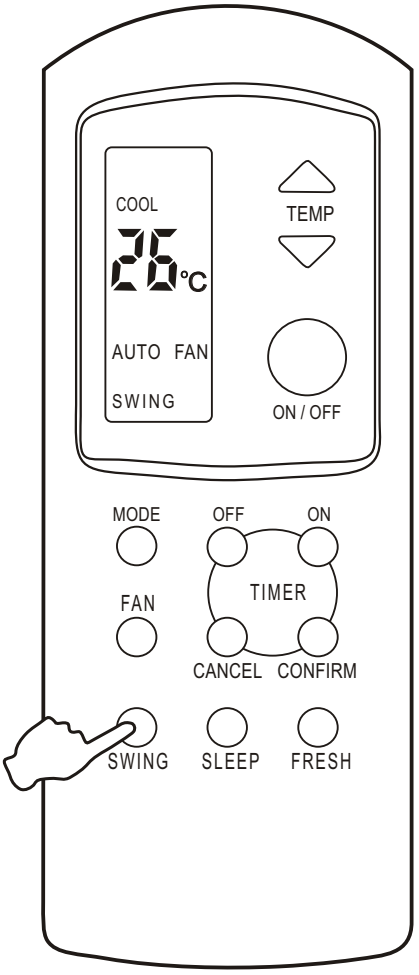
Up-Down Air Direction Adjustment

To set up-down air-louver automatically swinging :
While the air-conditioner is running, press "Air Direction" on the remote controller which displays "Swing", and then the up-down air louver automatically swings.



To stop up-down air-louver swinging :
Press "Air Direction" on the remote controller and the "Swing" display disappears, and then the up-down air louver stops swinging.



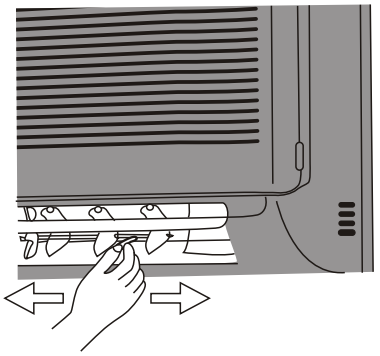


NOTE:

- To stop the up-down air louver in a desired position, set the louver to automatic swinging and when it reaches the desired position, stop the louver from swinging. It is necessary to adjust the louver angle by means of the remote controller, Setting of the louver with the hand may affect its normal operation, in which event, switch off the unit temporarily and re-start operation.
- To get the best effect, the up-down air flow is usually set in the following manner : Cooling, Dehumidifying - Horizontal air direction or upward air direction. Cooling - Downward air direction

Changing Left-Right Air Direction

Move the knobs to adjust left-right air direction
(one knob each on left and right sides)

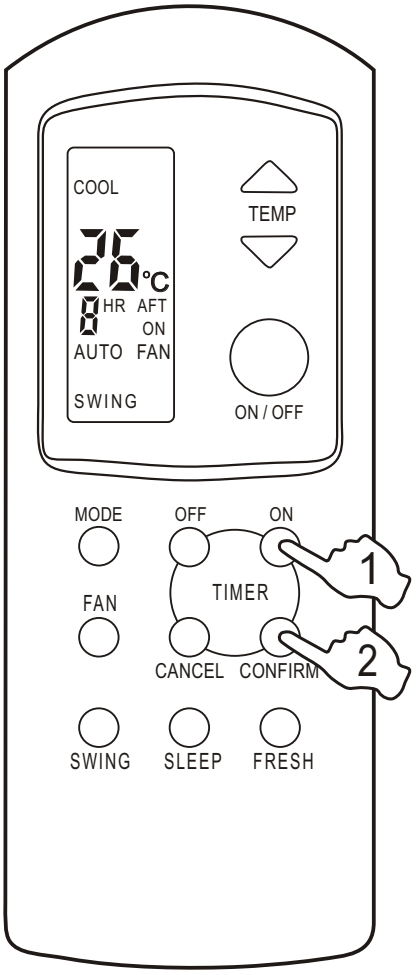


Timer Operations

Timer Switch On

1. Press "Timer On" button to set time for timer-on switching. Press the button once to change the time interval of 1 hour in a cyclic manner of 6, 7, 8 ...12..1, 2..5,6 (The display is showing the previous time as the starting time of the present setting)
   If the button is held down, the time interval will increase progressively by 1 hour unit.

2. Point the remote controller towards the receiver on the unit, press "Timer Confirm" button to send the timer setting to the air-conditioner. Then the timer light on the unit lights up, indicating that the unit is in the timer mode. When it reaches the switch-on time, the air-conditioner will operate in the pre-set modes.



NOTE:

- Before timer operation, please set the operation mode, temperature, air flow etc. on the remote controller, With timer being set to switch-on mode. the air-conditioner will operate according to the last setting.
- Usually, timer-on setting is made while the air-conditioner is not in operation. If timer-on is set while the air-conditioner is running, then the unit will shut down immediately and re-start at the pre-set time.
- If the "On-Off" button is pressed while the unit is under timer-on setting, then the unit will start immediately, the timer setting is cancelled and the timer light will be off.

Timer Switch Off

1. Press "Timer Off" button to set time for timer-off switching. Press the button once to change the time interval of 1 hour in a cyclic manner of 6, 7, 8 ...12..1, 2..5,6 (The display is showing the previous time as the starting time of the present setting)
   If the button is held down, the time interval will increase progressively by 1 hour unit.

2. Press "Timer Confirm" button to send the timer setting to the air-conditioner. Then the timer light on the unit lights up, indicating that the unit is in the timer mode. When it reaches the switch-off time, the air-conditioner will automatically shut down.

NOTE:

- Timer-Off can only be set when the air-conditioner is running.
- Timer-On and Timer-Off cannot be set at the same time.
- Timer display on the remote controller : While time passes, the display shows the remaining time.
- If the "On-Off" button is pressed while the unit is under timer-off setting, then the unit will shut down immediately, the timer setting is cancelled and the timer light will be off.

Timer Cancellation

Press "Timer-Cancel" button to cancel the timer-on or timer-off settings.

Sleep Operation

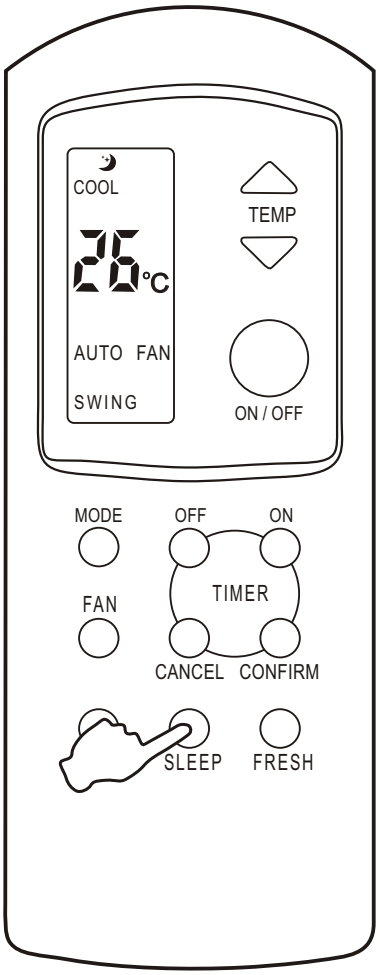
Press the "Sleep" button on the remote controller, which displays a " ☾ " symbol, the buzzer gives out a "beep" sound, and the air-conditioner is in a sleep mode. Press the "Sleep" button again, the " ☾ " symbol disappears, and the unit is discharged of the sleep mode.

In the sleep mode, when the unit is in cooling or de-humidifying operation, the pre-set temperature will be raised by 1°C after 1 hour of sleep operation, and be further raised by 1°C after 2 hours, i.e. totally raised by 2°C in 2 hours, and then keeps on running at this temperature. If the unit is in heating operation, the pre-set temperature will be lowered By 1°C after 1 hour of sleep operation, and be further lowered by 1°C after 2 hours, and further Lowered by 1°C after 3 hours; totally lowered by 3 °C in 3 hours, and then keeps on running at this temperature.

The unit will automatically switch off after 7 hours of sleep operation. However, if the timer-off is also set, then the sleep operation will follow the timer-off setting. For example, if a 9-hour switch off is set along with sleep mode, then the unit will run for 9 hours before switching off.

NOTE:

- Please set this function during sleeping at night to give better comfort and save electricity.

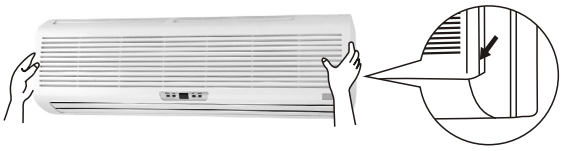


Emergency Operation

- If the remote controller is lost or cannot be used due to battery run-out, please use the "Emergency" button to switch on the air conditioner.

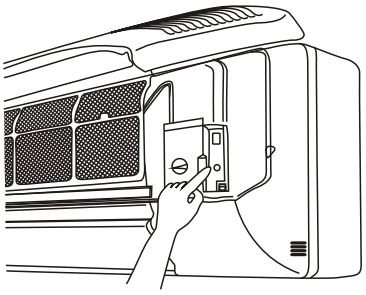
1. Open the Front Panel

Hold the ridges on the left and right sides of the unit with fingers, and pull it up outwards with a slight force until reaching the stop position. (about 60°)



2. "Emergency" Button

Press "Emergency" Button and the air conditioner gives out a " beep " sound and starts operation in automatic mode. Press the button once again to stop the airconditioner running.



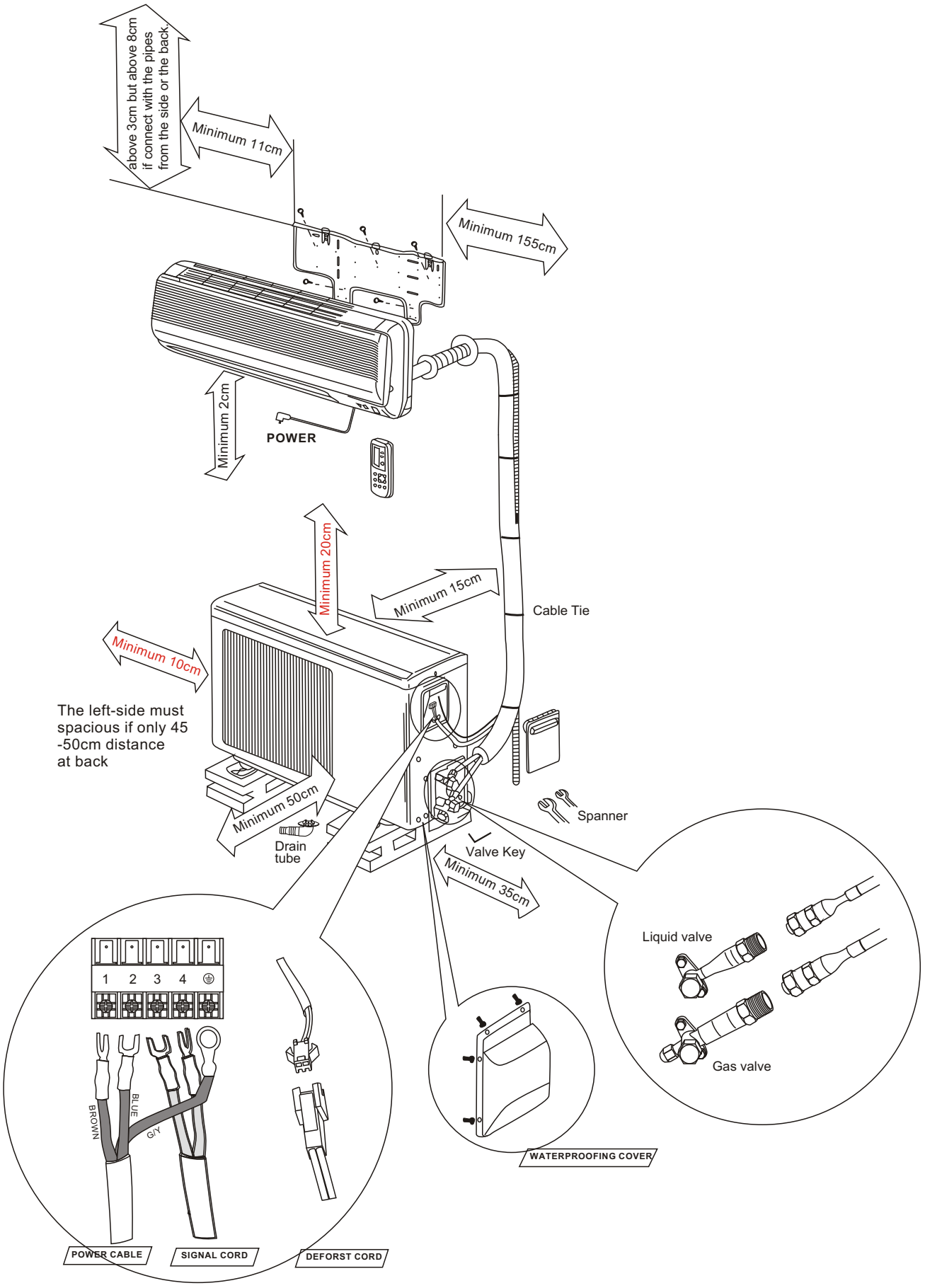
3. Close the Front Panel

Close the panel to original position.

Compulsory Operation

- Use this function for installation or test-run only.
  1. Ensure that the air conditioner is not used before on being first connected to power supply. If the air conditioner was operating before, Please disconnect it to power supply and then reconnect on. Open the front panel by following Step 1 of the above "Emergency Operation".
  2. Press "Emergency" button consecutively for 3 seconds, and the air conditioner will give out 3 "beep" tones
  3. on being set to compulsory cooling. To stop the air-conditioner, press the button one more time. Close the front panel.
  4.
- In compulsory cooling, the air-conditioner will operate for 20 minutes in cooling function disregarding the ambient temperature before it stops running. During compulsory cooling, the system may be shut down by pressing "Emergency" button. During operation, the air-conditioner will follow remote controlled instructions if available.

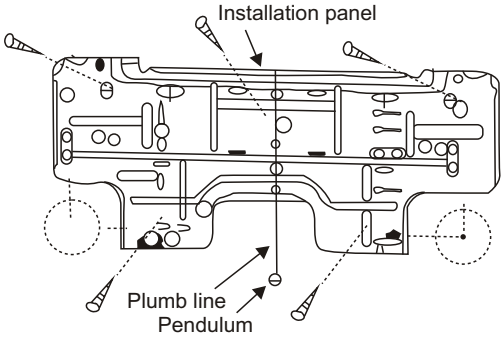
Installation Master Plan

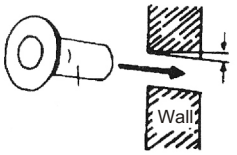


Installation of Indoor Unit

Installation of Wall-Hanging Panel

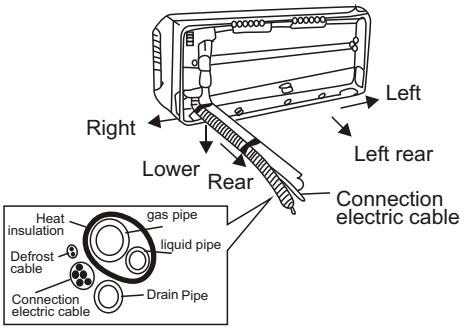
- Install the installation panel so that it is correctly positioned vertically and horizontally.
- Fix the installation panel at the 5 points shown in the figure with 5 pieces plastic explored screws and lagging screws. Position the drill-holes by following the routing of the joining hose.
- Drill a hole in the wall with the outer side 5-10mm lower than the inner side, in order to have a good drain flow.





Piping connection

- The piping can be run in the five directions indicated by Right, Lower, Rear, Left, Left rear in the figure. When the piping is run in direction Right or Left, cut a notch along the piping groove in the side of back cover with a hacksaw. When the piping is run in the direction Lower knock out the flap in the thin wall at the front bottom of the back cover.
- Run the piping in the direction of the wall hole and bind the heat insulation, connection electric wire with drain pipe at the bottom.
- Attention: for the min. bend curve follow the table. Do not force more min bend radio, as the flexible pipe will be broken.

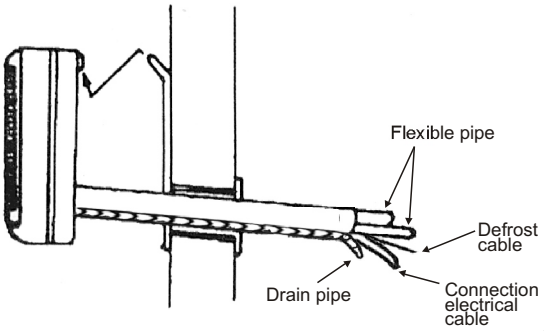


MODEL	FLEXIBLE TUBE	MIN ALLOWABLE BEND RADIUS
8000, 9000btu/h	LIQUID	50 mm
	GAS	50 mm
12000btu/h	LIQUID	50 mm
	GAS	80 mm
15000, 18000btu/h	LIQUID	50 mm
	GAS	100 mm
24000,28000btu/h	LIQUID	50 mm
	GAS	100 mm

Installation of Indoor Unit

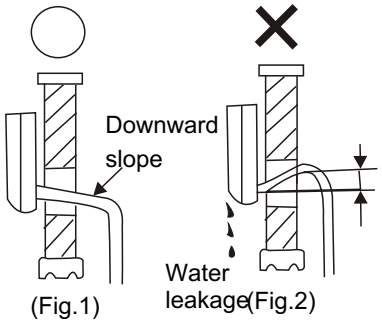
Indoor Unit Installation

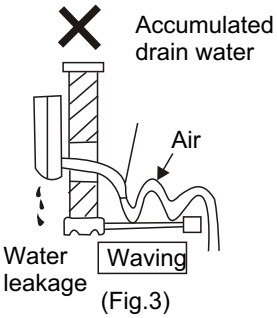
- Run the bound pipe and cable through the wall hole and mount the indoor unit onto the installation panel securely.
- Arrange the pipes and cable well.

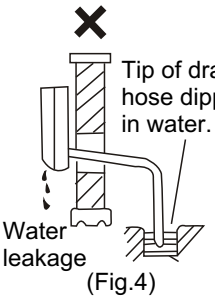


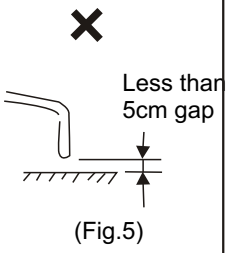
Drain Piping

- The drain pipe should point downward for easy drain flow.(Fig.1)
  Do not make drain piping as shown in Fig.2 to 5.



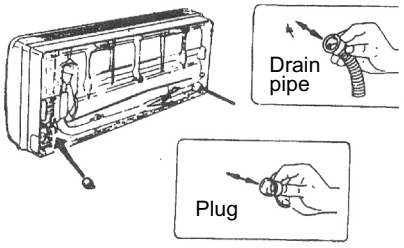




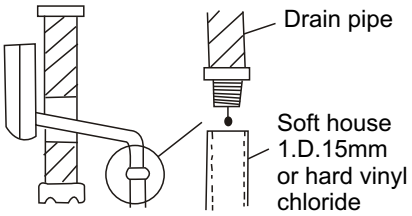


- If the piping runs to the left as shown in the right figure, seal the drain port on the right with the plug and connect the drain pipe on the left.

  Check that:
  1) The top and bottom hooks are hooked firmly.
  2) The main unit is accurately positioned horizontally and vertically. If the unit is not installed properly, water will drip onto the floor.
  3) The drain pipe is not bent upwards as shown in the figure.



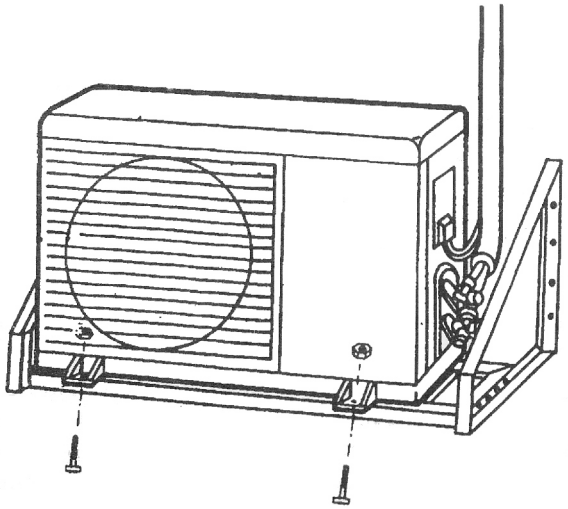
- Connect the drain pipe with extension drain hose
  If the extension drain pipe has to pass through a room, be sure to wrap with commercially soil insulation.



Installation of Outdoor Unit

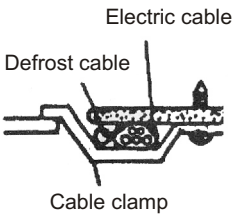
Placement of Outdoor Unit

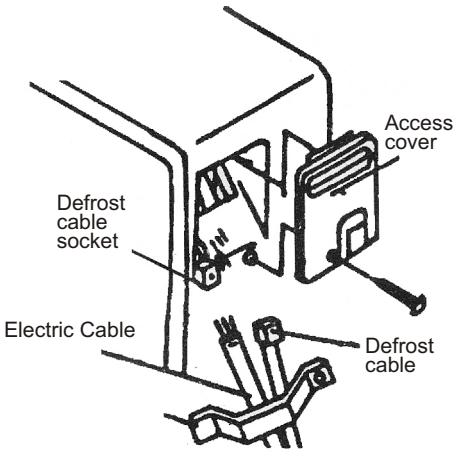
Outdoor unit may be mounted concrete slabs raised above ground level, or on specialist wall mounting brackets (not supplied).
If unit is mounted at ground level please ensure that it is raised above ground level so there can be no risk of unit ever being stood in water.



Outdoor Unit Wiring

- Remove the electric box access cover.
- Insert the defrost cable into its socket.
- Connect the electric cable to the terminal by the number.
- Secure the cables with cable clamp.
- Fix back the access cover.

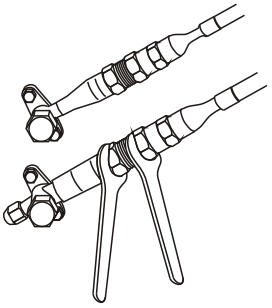


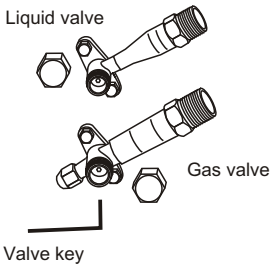


Connection of Pipe and Electric Cable

Piping Connection

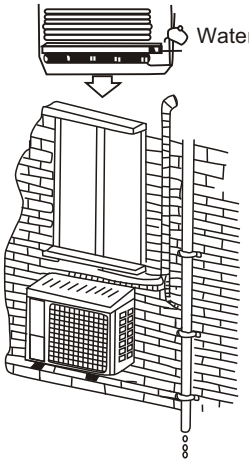
- Take off the waterproofing cover of the outdoor unit valve.
- Connect the speedy tie-in to the outdoor unit valve. Tighten them with 2 spanners.
- Remove the cap of two valves with the spanner.
- Open the liquid valve and gas valve with valve key.
- Tighten the cap of two valves.
- Gas leakage inspection:
  After connecting the piping,check the joints for gas leakage,with soapy water or gas leak detector.

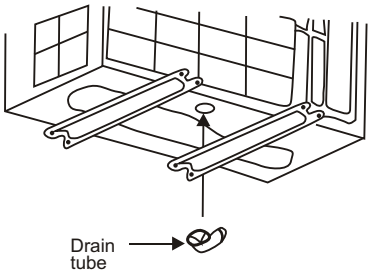




Finishing

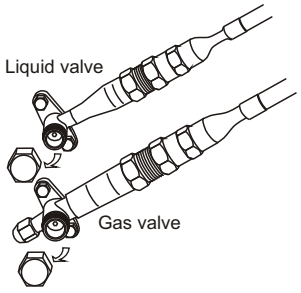
- Bind the flexible pipe, electric cable, drain pipe with 5 pieces cable tie.
  Make sure to put drain pipe at the bottom.
- Drain tube:
  Fix the drain tube on the bottom of the outdoor unit to allow drainage of condensation water.
- Drainage Test:
  Pour a cup or water into the evaporator water tray and ensure that water drains freely from the drainage hose.



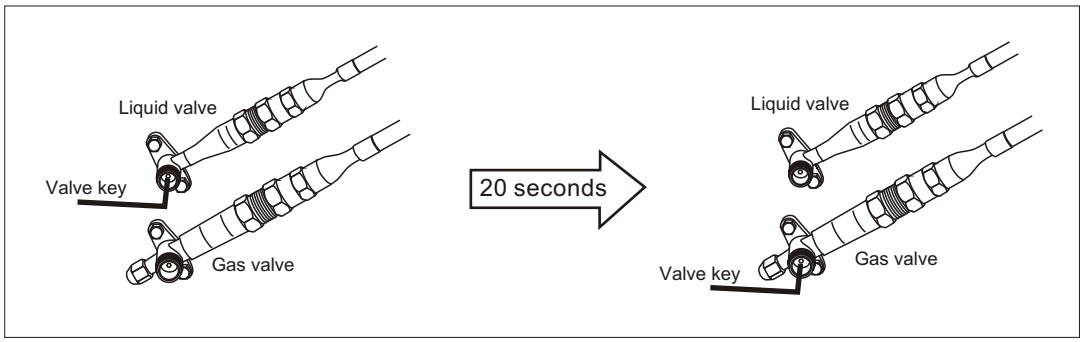


The step and diagram for Collect refrigerant (Only to be used if you intend to move the equipment to new location.)

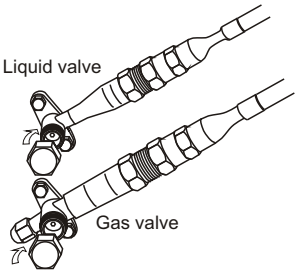
1. Start the a/c, operate cooling state
2. Remove the cap of two valves with the spanner.



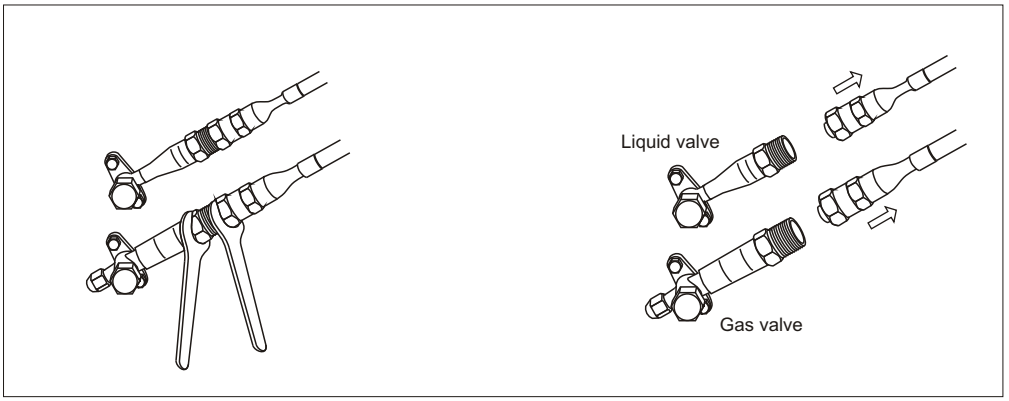
3. Tighten the core of the liquid valve (the smaller one) with valve key at first. After about 20 seconds, tighten the core of the gas valve (the bigger one) with valve key. Turn off the a/c at once and cut off the power supply.



4. Tighten the cap of two valves.

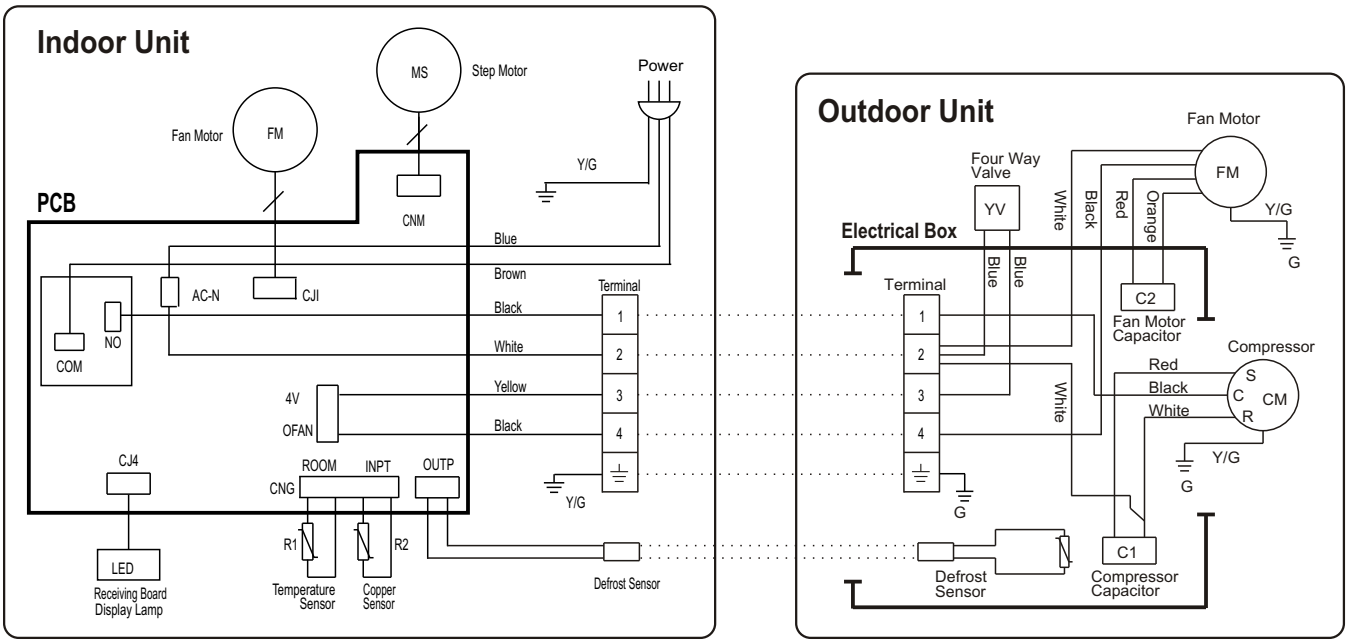


5. Disconnect the power cable from outdoor unit.
6. Loose the nut of the connect pipe to the outdoor unit valve with 2 spanner, disconnect the connect pipe and and the two valves.



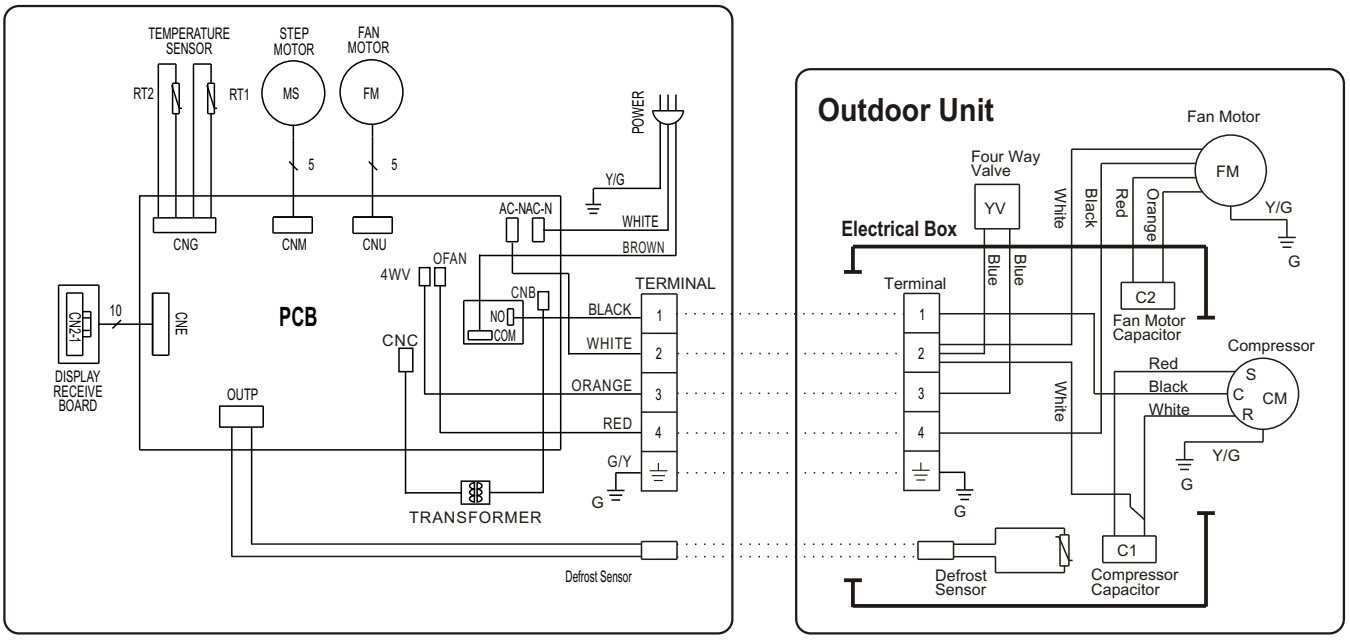
Electrical Wiring Diagram

C series (Single Split Indoor Unit)
8000Btu/h, 9000Btu/h, 12000Btu/h



NOTE:
This electric wiring diagram is only for reference, the correct diagram is on the machine.

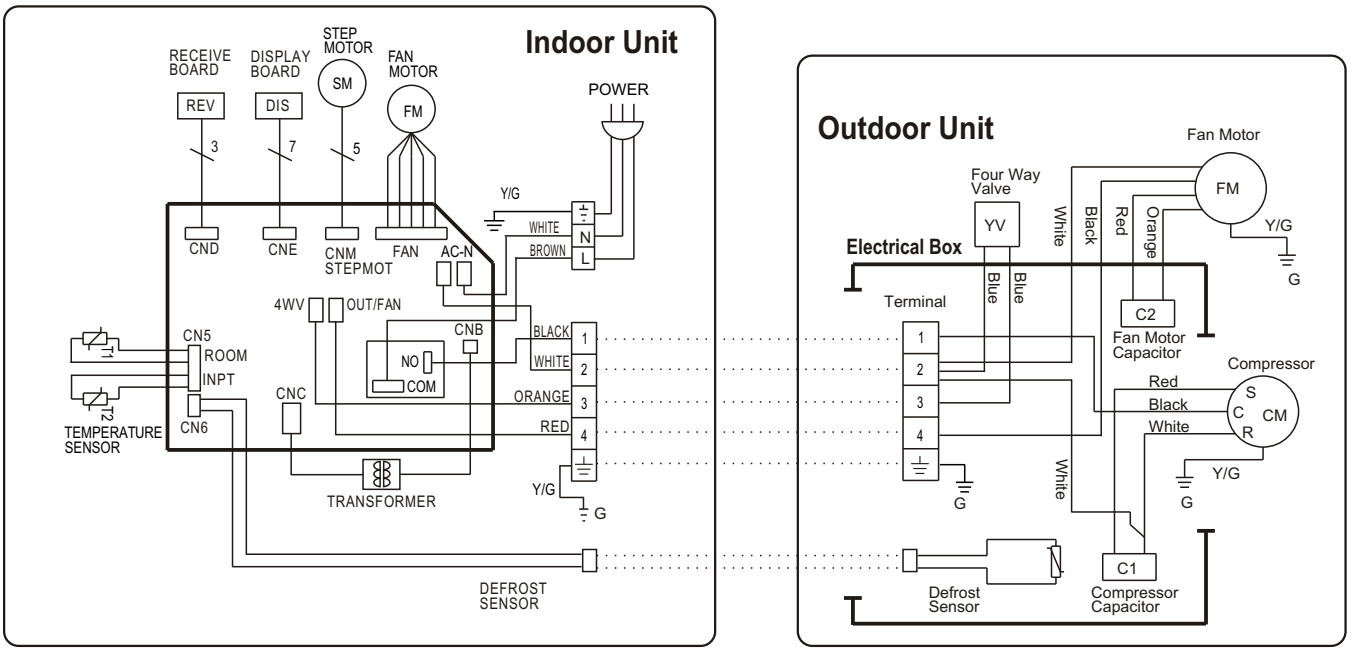
G series (Single Split Indoor Unit)
8000Btu/h, 9000Btu/h, 12000Btu/h



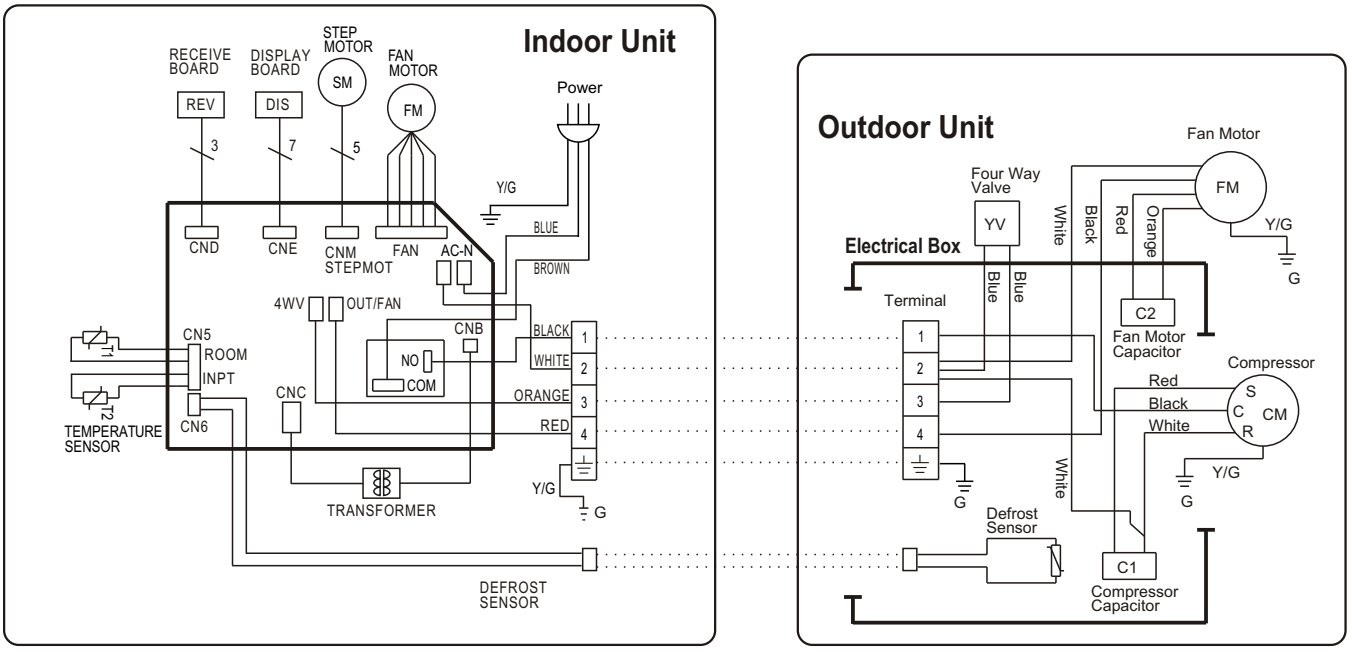
NOTE:
This electric wiring diagram is only for reference, the correct diagram is on the machine.

Electrical Wiring Diagram

D series (Single Split Indoor Unit)
8000Btu/h, 9000Btu/h



D series (Single Split Indoor Unit)
12000Btu/h



NOTE:
This electric wiring diagram is only for reference, the correct diagram is on the machine.